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IS 4314 (1991): Orthodontic pliers, Cone Socket - Shapes, Dimensions and Tests [MHD 8: Dentistry]

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“Knowledge is such a treasure which cannot be stolen”



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भारतीय मानक
आर्थोडॉन्टिक्स प्लास, शंकु साकेट — आकृति आयाम तथा परीक्षण
(पहला पुनरीक्षण)

Indian Standard
ORTHODONTIC PLIERS, CONE SOCKET —
SHAPE, DIMENSIONS AND TESTS
(*First Revision*)

UDC 615.472 : 621.881.4 : 616.314-72

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FOREWORD

This Indian Standard (First Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Dental Instruments and Equipment Sectional Committee had been approved by the Medical Equipment & Hospital Planning Division Council.

This standard was first issued in 1967, covering specifications for Cone Socket Type Dental Pliers. It has been revised so as to retain the requirements in respect of shape, dimensions and specific tests only, as the specification part of the pliers is covered in IS 12507 : 1988 'General requirements for dental pliers'. This standard is, therefore, intended to be used only in respect of the shape, dimensions and specific tests for cone socket orthodontic pliers.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the results of a test or analysis, shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding off numerical values (revised)'. The number of significant places retained in the rounded off value should be the same as that of specified value in this standard.

Indian Standard

ORTHODONTIC PLIERS, CONE SOCKET — SHAPE, DIMENSIONS AND TESTS

(First Revision)

1 SCOPE

1.1 This standard specifies the shape, dimensions and specific tests for cone socket orthodontic pliers used in dentistry.

2 REFERENCES

2.1 The following Indian Standards are necessary adjuncts to this standard:

<i>IS No.</i>	<i>Title</i>
1501 (Part 1) : 1984	Method for vickers hardness test for metallic materials : Part 1 HV 5 to HV 100 (second revision)
1570 (Part 5) : 1985	Schedule for wrought steels : Part 5 Stainless and heat resisting steel (second revision)
12507 : 1986	General requirements for dental pliers

3 SHAPE AND DIMENSIONS

3.1 The shape and dimensions of cone socket type orthodontic pliers shall be as shown in Fig. 1.

4 TESTS

4.1 Hardness Test

When tested in accordance with IS 1501 (Part 1) :

1984, the vickers hardness of the finished instruments (excluding screws) shall be 650 to 700 HV

4.2 Performance Test

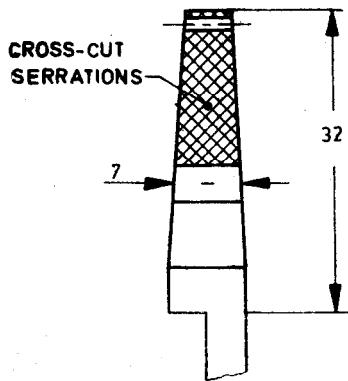
The pliers shall be used to bend and shape a cold drawn stainless steel wire of 1 mm diameter conforming to designation 04 Cr19 Ni 9 or 07 Cr-19 Ni 9 of IS 1570 (Part 5) : 1985. This shall be done six times. On completion of the test, the pliers shall show no sign of damage.

4.3 Rigidity Test

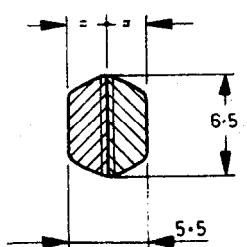
The pliers shall be tested for rigidity as given in 4.3.1 and 4.3.2.

4.3.1 The pliers shall be made to grip a piece of 1 mm thick stainless steel sheet conforming to designation 04 Cr 19 Ni 9 or 07 Cr 19 Ni 9 of IS 1570 (Part 5) : 1985. The handles of the pliers shall be pressed six times by using maximum pressure on the hands. On completion of the test, the pliers shall show no sign of damage.

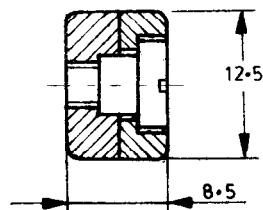
4.3.2 A compressive force of 20 kgf shall be applied to the pliers and allowed to act for 2 minutes such that the force acts on each handle (a total of 40 kgf on the instrument) at a distance of 40 mm from their free ends. On completion of the test, the pliers shall show no sign of damage.



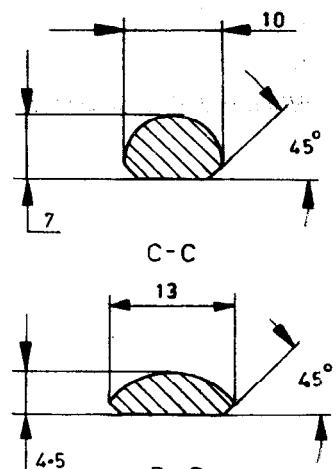
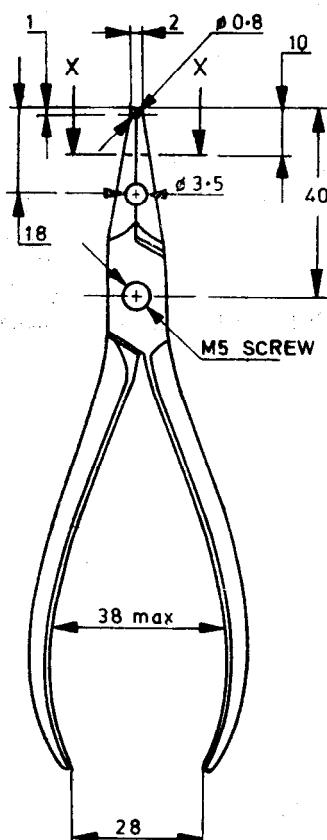
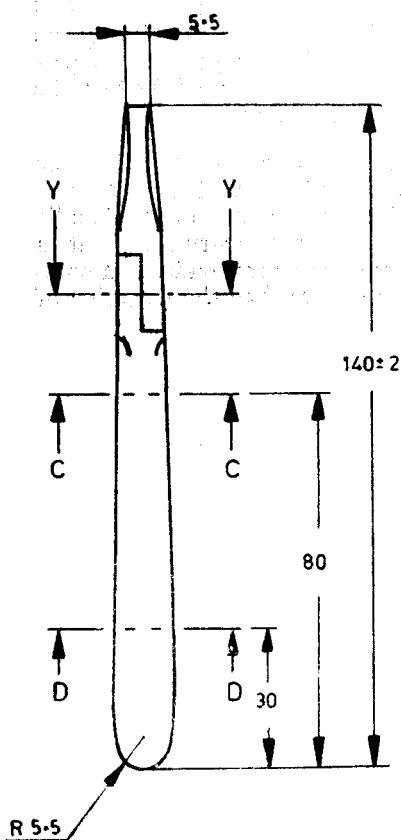
DETAIL OF JAW



X - X



Y - Y



D - D

All dimensions in millimetres.

FIG. 1 CONE SOCKET PLIERS, ORTHODONTIC

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